Grain Transportation Report

A weekly publication of the
Transportation and Marketing Programs/Transportation Services Branch

Coordinator: Deen Olowolayemo (202) 690-1328 **www.ams.usda.gov/tmdtsb/grain**

March 4, 2004

Contents

The next release is March 11, '04

Related Web Sites

Corps Announces New Plan for Missouri River. On February 27, the U.S. Army Corps of Engineers (Corps) announced a Preferred Alternative (PA) for water control measures on the Missouri River. Fourteen years ago, when the Missouri River Basin experienced a major drought, the Corps began a revision of the water control measures on the Missouri River. The listing of three Missouri River species (the interior least tern, piping plover, and pallid sturgeon) under the Federal Endangered Species Act further emphasized the need to revise and update the water control measures, referred to as the Master Manual.

The PA, if immediately implemented, requires the Corps to create 1,200 acres of additional fish habitat by July 1. Failure to do so would result in an automatic drop in river levels downstream, thereby closing the river to barge traffic. Conservationists have long argued that the Missouri should be returned to its natural state, before it was dammed and channeled beginning in the 1940s, with a spring rise and shallow summer flow to aid endangered species. The Corps' plan calls for man-made habitats that duplicate those naturally created by the spring floods and low summer water levels. For water conservation measures to stop navigation on the lower Missouri River, the water storage in the reservoirs would have to drop another 19 percent from current levels. The plan does not add additional risks for potential low water levels on the Mississippi River.

The Corps said the new plan anticipates steady levels for barge shipping, enough water for power generation, and considerably more water in big reservoirs in Montana and the Dakotas. U.S. District Judge Paul A. Magnuson has ordered the Corps to finalize the PA by March 19. A public comment period is underway. (U.S. Army Corps of Engineers).
https://www.nwd.usace.army.mil/pa/missouri2003aop.asp, Nick.Marathon@usda.gov

Zebra Mussels Found in Missouri River. Zebra mussels have been discovered at two Missouri River dams in South Dakota. The nonindigenous mussels feed on algae, and are capable of depleting food sources of other species such as the pallid sturgeon. Zebra mussels form massive colonies and are notorious for clogging water supply pipes of hydroelectric and nuclear power plants, public water supply plants, and industrial facilities. Navigational buoys have been sunk under the weight of attached zebra mussels. Zebra mussels were introduced to U.S. waters from Europe in the mid-1980s, probably when commercial ships discharged ballast water in the Great Lakes. Zebra mussels, which are carried mainly by the flow of water and commercial and recreational boats, now inhabit the waters of 20 States. Eradication procedures, such as chlorine treatments have been used; however, there are environmental problems associated with this due to possible carcinogenic by-products. (U.S. Geological Survey, Bismarck Tribune).
Nick.Marathon@usda.gov

Grain Transportation Indicators

For more information contact: Deen Olowolayemo (202) 690-1328

Table 1--Grain transport cost indicators*

Week ending	Truck	Rail	Barge	Ocean Gulf	Ocean Pacific
03/03/04	109	225	89	323	310
Compared with last week	↑	↑	↑	↓	↓

*Indicator: Base year 2000 = 100; Weekly updates include truck = diesel ($/gallon); rail = nearby secondary rail market ($/car); barge = spot Illinois River basis (index = percent of tariff rate); and ocean = routes to Japan ($/metric ton)

Source: Transportation & Marketing Programs/AMS/USDA

Table 2--Market update: U.S. origins to export position price spreads ($/bushel)

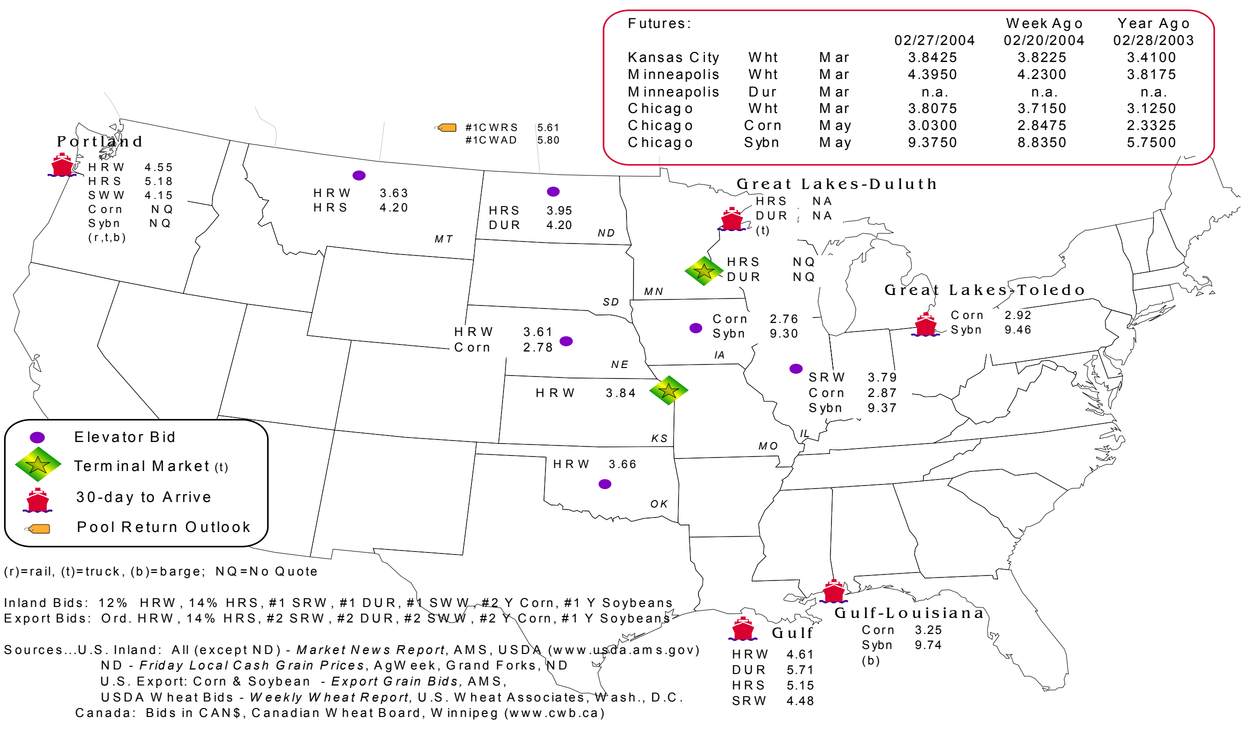
Commodity	Origin--destination	2/27/2004	2/20/2004
Corn	IL--Gulf	-0.38	-0.37
Corn	NE--Gulf	-0.47	-0.48
Soybean	IA--Gulf	-0.44	-0.53
HRW	KS--Gulf	-0.77	-0.67
HRS	ND--Portland	-1.23	-1.23

Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1
Grain bid summary



Rail

For more information contact: Marvin Prater (202) 690-6290 or Johnny Hill (202) 720-4211

Table 3--Rail deliveries to port (carloads)*

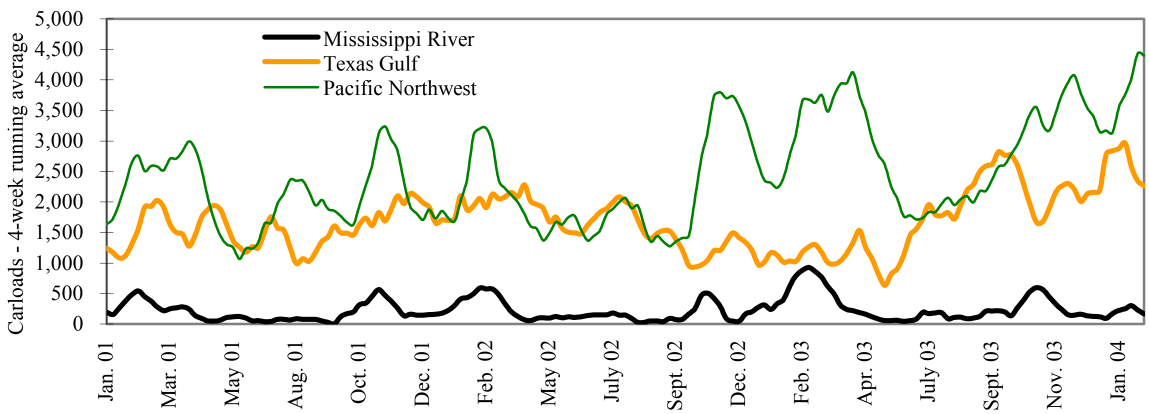
Week ending	Mississippi Gulf	Texas Gulf	Pacific Northwest	Atlantic & East Gulf	Total
02/25/04	43	2,255	4,131	216	6,645
02/18/04	40	1,752	5,340	304	7,436
2004 YTD	1,566	20,557	31,811	2,659	56,593
2003 YTD	5,959	9,357	25,657	5,879	46,852
2004 as % of 2003	26	220	124	45	121
Total 2003**	14,934	88,118	150,530	20,509	274,091
Total 2002	10,937	84,625	111,832	20,842	228,236

Source: Transportation & Marketing Programs/AMS/USDA; (*) Incomplete Data; (**) Excludes 53rd week;YTD = year-to-date

Railroads originate approximately 40 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2

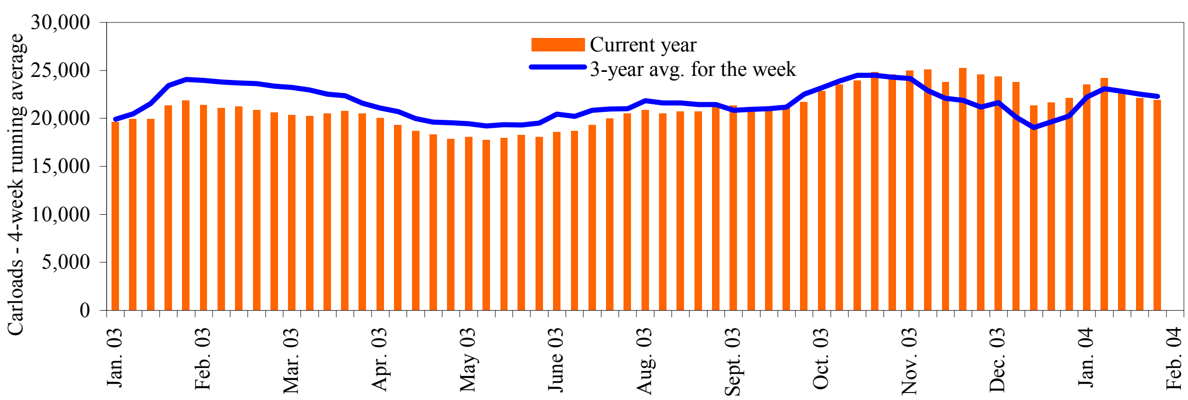
Rail deliveries to port



Source: Transportation & Marketing Programs/AMS/USDA

Figure 3

Total weekly U.S. grain car loadings for Class I railroads



Source: Association of American Railroads

Table 4--Class I rail carrier grain car bulletin (grain carloads originated)

	East		West			U.S. total	Canada	
Week ending	CSXT	NS	BNSF	KCS	UP		CN	CP
02/21/04	2,896	3,390	9,242	429	6,834	22,791	4,242	3,476
This week last year	2,595	3,380	8,260	201	7,366	21,802	2,522	3,005
2004 YTD	20,881	24,506	65,446	4,289	46,735	161,857	32,172	23,911
2003 YTD	20,964	23,762	56,561	2,543	47,677	151,507	22,467	23,714
2004 as % of 2003	100	103	116	169	98	107	143	101
Total 2003	149,389	174,338	425,035	24,859	340,993	1,114,614	202,294	201,729

Source: Association of American Railroads (www.aar.org); YTD = year-to-date

Table 5--Tariff rail rates for unit and shuttle train shipments*

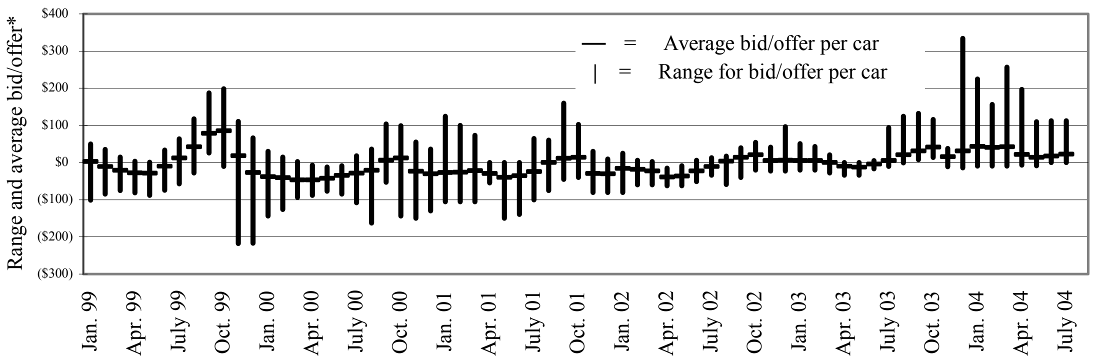
Effective date: 3/1/2004	Origin	Destination	Rate/car	Rate/metric ton	Rate/bushel**
Unit train*					
Wheat	Minneapolis, MN	Houston, TX	$2,020	$22.27	$0.61
	Kansas City, MO	Galveston, TX	$1,820	$20.06	$0.55
	Minneapolis, MN	Portland, OR	$4,148	$45.72	$1.24
	St. Louis, MO	Houston, TX	$1,945	$21.44	$0.58
	Kansas City, MO	Laredo, TX	$2,280	$25.13	$0.68
	Chicago, IL	Albany, NY	$1,834	$20.22	$0.55
	Chicago, IL	Richmond, VA	$1,961	$21.62	$0.59
Corn	Minneapolis, MN	Portland, OR	$3,240	$35.71	$0.91
	Chicago, IL	Baton Rouge, LA	$2,736	$30.16	$0.77
	Council Bluffs, IA	Baton Rouge, LA	$2,170	$23.92	$0.61
	Evansville, IN	Raleigh, NC	$1,841	$20.29	$0.52
	Council,Bluffs, IA	Stockton, CA	$3,496	$38.54	$0.98
	Kansas City	Dalhart, TX	$1,745	$19.24	$0.49
	Columbus, OH	Raleigh, NC	$1,750	$19.29	$0.49
	Des Moines, IA	Laredo, TX	$2,930	$32.30	$0.82
Soybeans	Minneapolis, MN	Portland, OR	$3,310	$36.49	$0.99
	Chicago, IL	Baton Rouge, LA	$2,736	$30.16	$0.82
	Council Bluffs, IA	Baton Rouge, LA	$2,799	$30.85	$0.84
	Des Moines, IA	Laredo, TX	$2,930	$32.30	$0.88
	Evansville, IN	Raleigh, NC	$1,841	$20.29	$0.55
	Chicago, IL	Raleigh, NC	$2,441	$26.91	$0.73
Shuttle train*					
Wheat	St. Louis, MO	Houston, TX	$1,750	$19.29	$0.53
	Minneapolis, MN	Portland, OR	$3,993	$44.01	$1.20
Corn	Fremont, NE	Houston, TX	$2,425	$26.73	$0.68
	Minneapolis, MN	Portland, OR	$3,090	$34.06	$0.87
Soybeans	Council Bluffs, IA	Houston, TX	$2,425	$26.73	$0.68
	Minneapolis, MN	Portland, OR	$3,110	$34.28	$0.87

*A unit train refers to shipments of at least 52 cars. Shuttle train rates are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

**Approximate load per car = 100 short tons: corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

Sources: www.bnsf.com, www.cpr.ca, www.csx.com, www.uprr.com

Figure 4
Secondary rail car market, delivery month-year



*up to 6 months of trading
Source: Transportation & Marketing Programs/AMS/USDA

Average bid/offer is the simple average of all the weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

Range for bid/offer shows the range of average weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

Table 6--Weekly secondary rail car market ($/car)*

	Delivery period			
Week ending	**Apr. 04**	**May 04**	**June 04**	**July 04**
BNSF-GF				
2/27/2004	$62	$51	$34	$37
Change from last week	-$1	$6	-$1	-$1
UP-Pool				
2/27/2004	$197	$110	$113	$113
Change from last week	$49	$42	$57	$58

*Average premium/discount to tariff, $/car-last week
Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,
Missing value = no bid quoted; GF = guaranteed freight; Pool = guaranteed pool
Sources: Transportation and Marketing Programs/AMS/USDA
Data from Atwood/ConAgra, Harvest States Co-op, James B. Joiner Co., Tradewest Brokerage Co.

The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Table 7--Rail car auction offerings ($/car)*

Delivery for:	Apr. 04	May 04	June 04
BNSF[1]			
COT/N. grain	no offer	no offer	no offer
COT/S. grain	no offer	no offer	no offer
UP[2]			
GCAS/Region 1	no offer	$50	$96
GCAS/Region 2	no offer	$157	$162

*Average premium/discount to tariff, last auction

[1]BNSF - COT = Certificate of Transportation

N includes: ID, MN, MT, ND, OR, SD, WA, WI, WY, and Manitoba, Canada.

S includes: ID, CO, IA, IL, KS, MO, NE, OK, TX, NM, AZ, CA, UT, and NV.

[2]UP - GCAS = Grain Car Allocation System

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

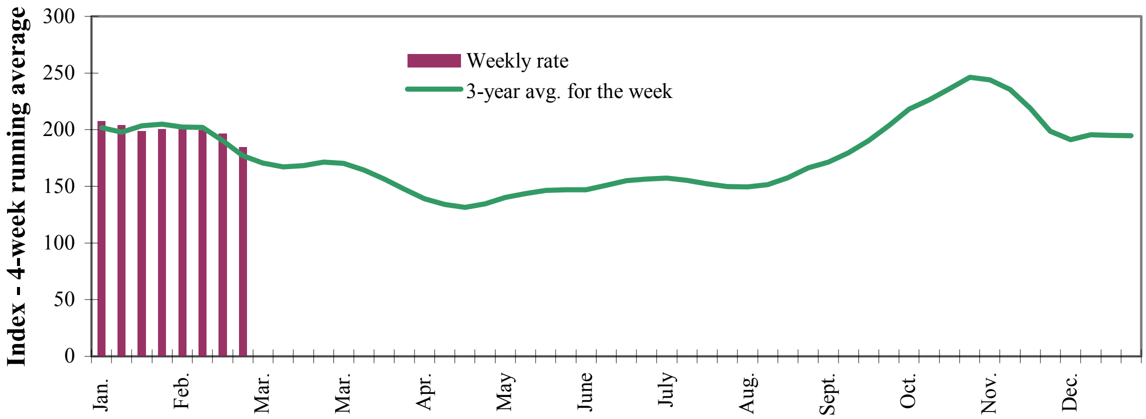
Source: Transportation & Marketing Programs/AMS/USDA

Rail service may be ordered directly from the railroad via **auction** for guaranteed service or tariff for nonguaranteed service or through the secondary market.

Barge Transportation

For more information contact: Nick Marathon (202) 690-0331 or Deen Olowolayemo (202) 690-1328

Figure 5
Illinois River barge rate index - quotes



Note: Index = percent of tariff rate
Source: Transportation & Marketing Programs/AMS/USDA

The **Illinois River barge rate index** averaged 183 percent of the **benchmark tariff rates** between 1999 and 2001, based on weekly market quotes. The **index**, along with **rate quotes** and **futures market** bids are indicators of grain transport supply and demand.

Table 8--Barge rate quotes: southbound barge freight

Location	2/25/2004	2/18/2004	March '04	May '04
Twin Cities	0	0	0	189
Mid-Mississippi	0	0	181	166
Illinois River	161	181	164	155
St. Louis	130	133	134	131
Lower Ohio	125	130	128	125
Cairo-Memphis	120	117	118	121

Index = percent of tariff, based on 1976 tariff benchmark rate
Source: Transportation & Marketing Programs/AMS/USDA

Calculating barge rate per ton:
(Index * 1976 tariff benchmark rate per ton)/100

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 6).

Figure 6
Benchmark tariff rates

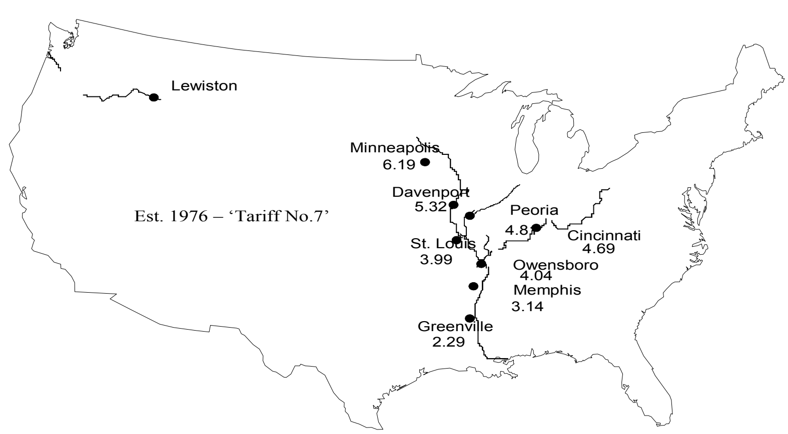


Table 9--Barge futures market (US$)*

Week ending	River/region	Contract period	Index rate Futures	Index rate Cash
3/1/2004	St. Louis	Apr.	n/a	143
		June	n/a	140
		Aug.	n/a	157
		Oct.	n/a	228
		Dec.	n/a	155
	Illinois River	Apr.	n/a	160
		June	n/a	160
		Aug.	n/a	175
		Oct.	n/a	248
		Dec.	n/a	173

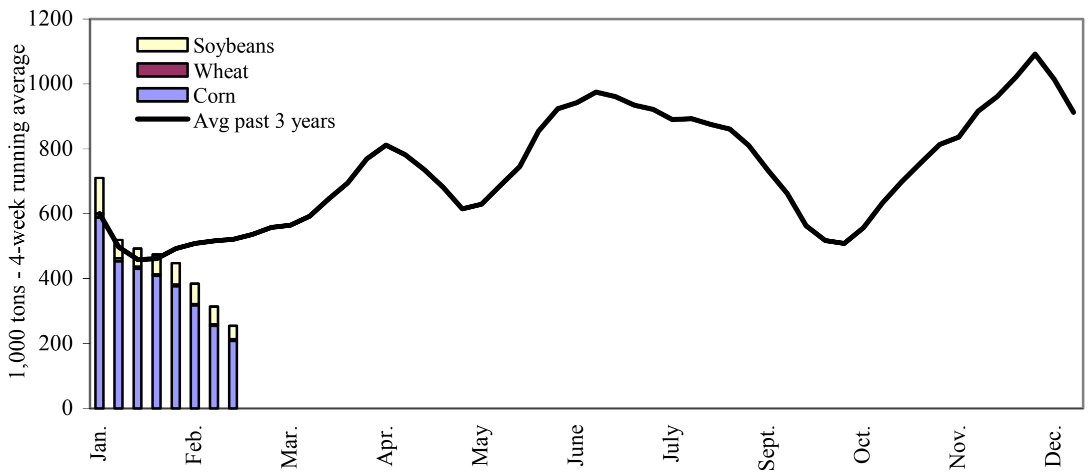
*Southbound barge freight nominal/cash basis values (US$)

Note: Index = percent of tariff, based on 1976 tariff benchmark rate

Source: Merchants Exchange of St. Louis (www.merchants-exchange.com)

Figure 7

Barge movements on the Mississippi River (Lock 27 - Granite City, IL)



Source: Transportation & Marketing Programs/AMS/USDA

Table 10--Barge grain movements (1,000 tons)

Week ending 02/21/04	Corn	Wheat	Soybean	Total
Mississippi River				
Rock Island, IL (L15)	0	0	0	0
Winfield, MO (L25)	0	0	0	0
Alton, IL (L26)	173	3	22	226
Granite City, IL (L27)	240	3	19	291
Illinois River (L8)	238	3	33	279
Ohio River (L52)	112	11	62	189
Arkansas River (L1)	0	44	4	48
2004 YTD	3,463	377	1,142	5,140
2003 YTD	3,350	283	2,018	5,885
2004 as % of 2003 YTD	103	133	57	87
Total 2003	29,898	2,787	9,146	42,526

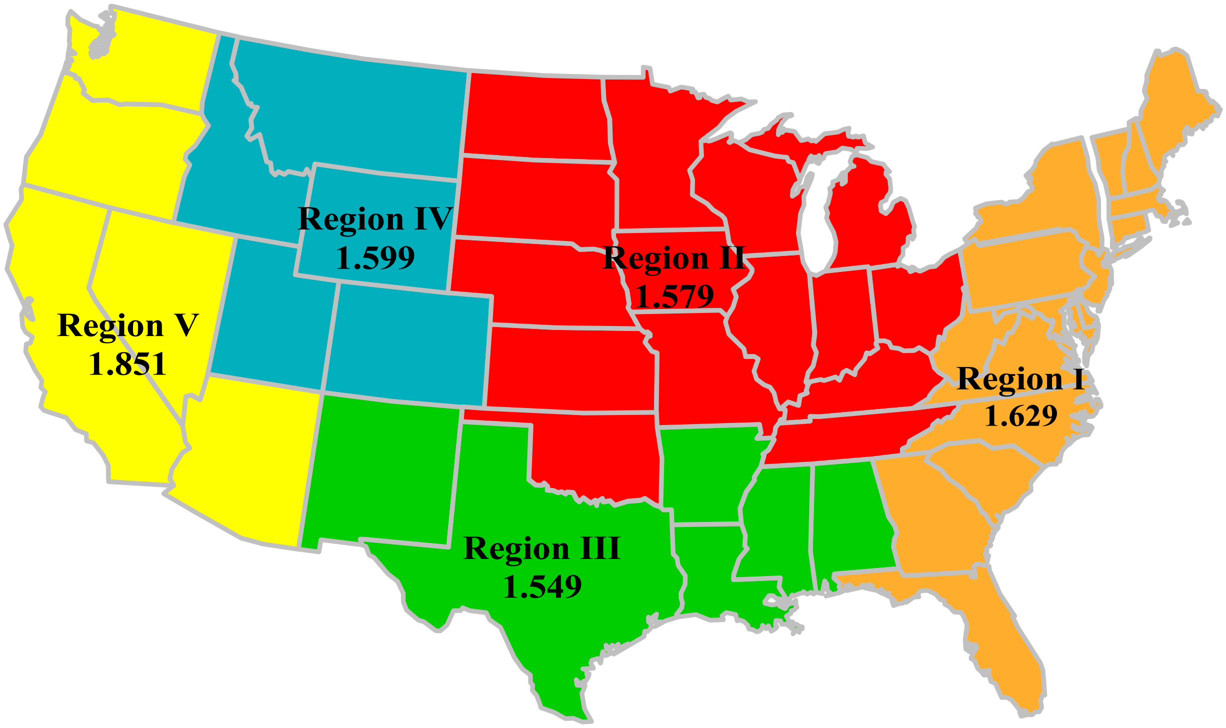
YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1.

Source: U.S. Army Corp of Engineers (www.mvr.usace.army.mil/mvrimi/omni/webrpts/default.asp)

Truck Transportation

For more information contact: Karla Martin (202) 720-8264

Figure 8
Retail on-highway diesel prices ($/gallon), week ending 03/01/04



Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

The weekly **diesel price** provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37 percent of the estimated variable cost.

Table 11--Retail on-highway diesel fuel prices*, week ending 03/01/04 (US$/gallon)

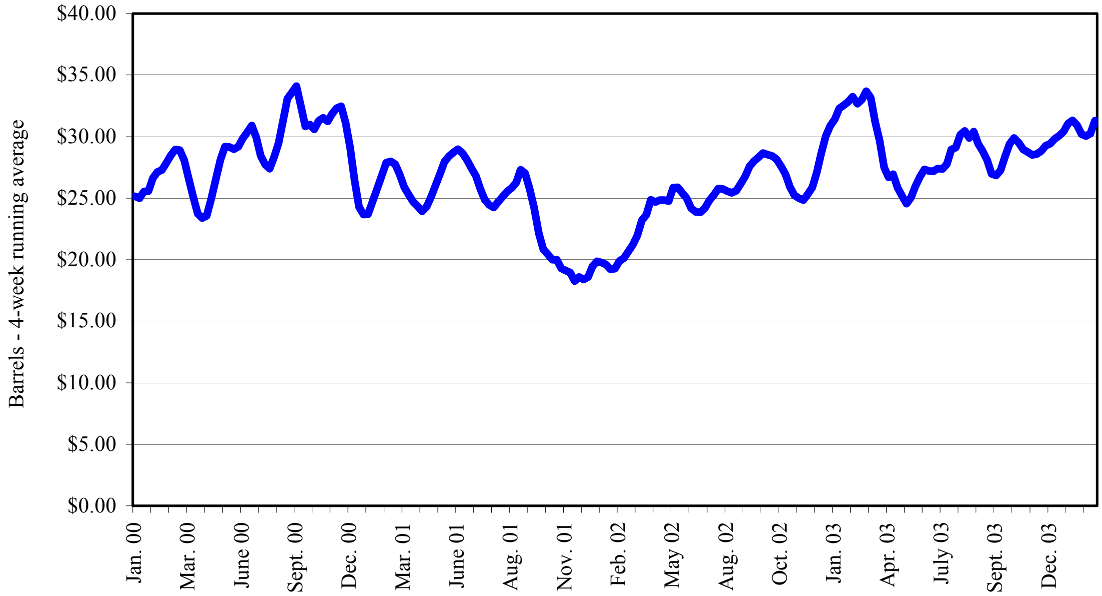
			Change from	
Region	**Location**	**Price**	**Week ago**	**Year ago**
I	East Coast	1.629	0.013	-0.166
	New England	1.767	0.000	-0.187
	Central Atlantic	1.736	0.000	-0.185
	Lower Atlantic	1.571	0.020	-0.155
II	Midwest	1.579	0.024	-0.156
III	Gulf Coast	1.549	0.013	-0.151
IV	Rocky Mountain	1.599	0.033	-0.137
V	West Coast	1.851	0.063	0.046
	California	1.939	0.075	0.107
Total	U.S.	1.619	0.024	-0.134

*Diesel fuel prices include all taxes.

Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

Figure 9

Weekly Brent crude price, Friday close ($/barrel)



Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

Crude oil price is an indicator in future diesel price trends.

Light sweet crude is exchanged on the New York Mercantile Exchange. **Brent Crude**, a blend of North Sea oils, is traded on the International Petroleum Exchange in London.

Table 12--Crude oil prices* (US$/barrel)

	3/1/2004	2/24/2004	% Change
Light Sweet Crude (NYMEX)	35.77	33.31	7.39
Brent Crude	33.63	n/a	n/a

*U.S. refiner crude acquisition cost, composite domestic & import; n/a = data not available

Source: U.S. Department of Energy/U.S. Department of Energy (www.eia.doe.gov)

Grain Exports

For more information contact: Johnny Hill (202) 720-4211

Table 13--U.S. unshipped export balances (1,000 metric tons)

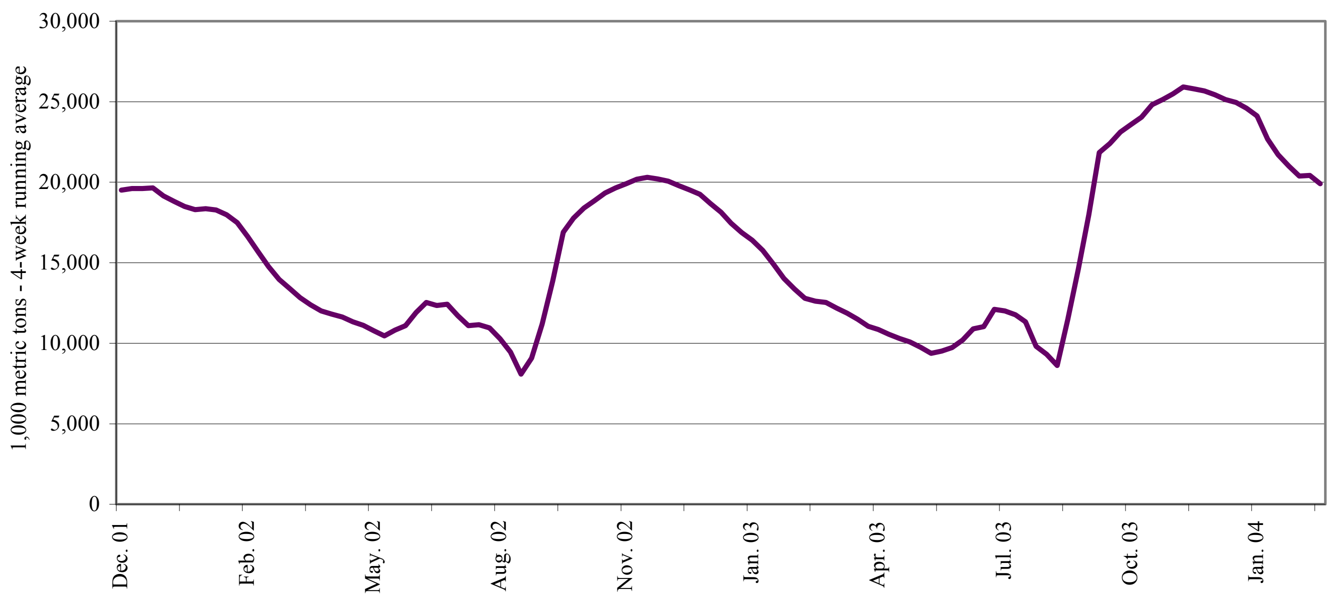
	Wheat						**Corn**	**Soybeans**	**Total**
Week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
2/19/2004	2,351	1,003	1,266	1,044	203	5,867	9,512	3,673	19,052
This week year ago	1,086	421	1,207	604	150	3,468	4,775	4,445	12,688
Commulative exports-crop year									
2003/04 YTD	9,185	2,700	4,792	3,458	765	20,901	22,933	19,111	62,945
2002/03 YTD	5,359	2,243	4,841	2,576	559	15,579	19,183	19,861	54,623
2003/04 as % of 2002/03	171	120	99	134	137	134	120	96	115
2002/03 Total	6,896	2,899	6,645	3,517	720	20,677	39,646	28,908	89,231
2001/02 Total	8,704	5,485	5,554	3,127	1,133	24,003	47,460	29,838	101,301

Note: YTD = year-to-date. Crop year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31

Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Figure 10

U.S. grain, unshipped export balance, including wheat, corn, and soybean sales



Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Table 14--Select U.S. port regions - grain inspections for export (1,000 metric tons)

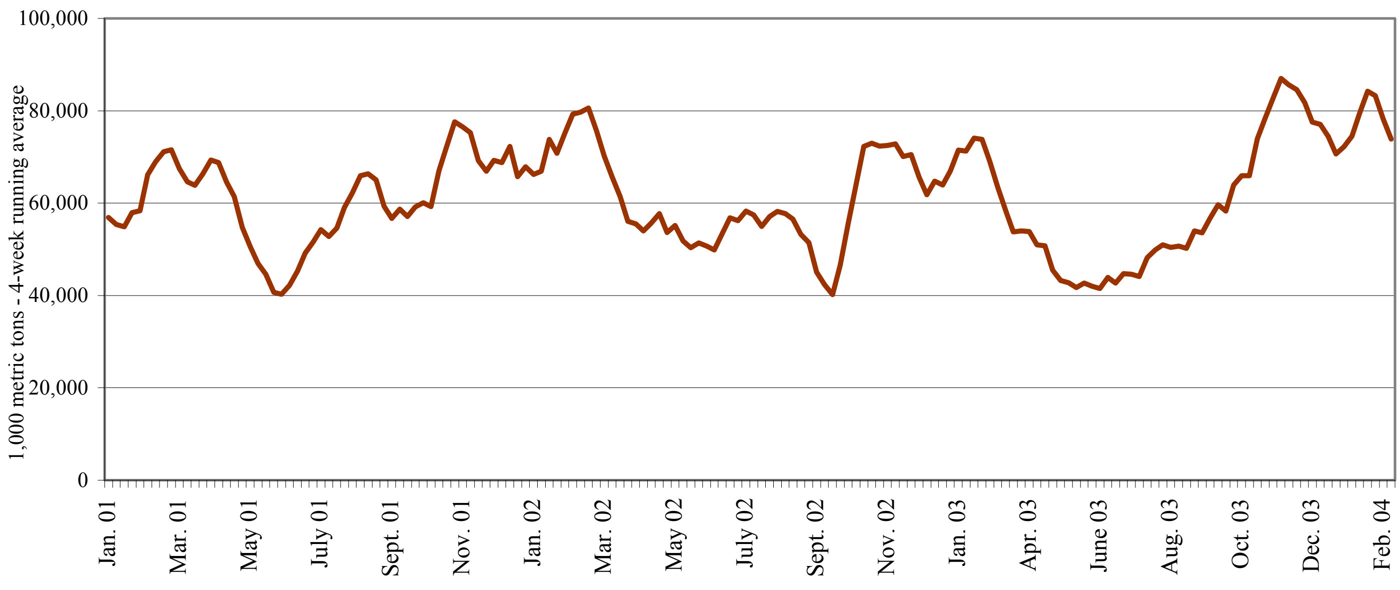
	Pacific Region			Mississippi Gulf			Texas Gulf			Port Region total		
Week ending	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Pacific	Mississippi	Texas
02/26/04	286	176	243	253	416	219	257	0	0	705	888	257
2004 YTD	2,125	1,400	1,215	1,253	6,005	4,025	1,997	44	0	4,741	11,282	2,041
2003 YTD	1,195	977	1,143	904	4,917	6,610	740	8	11	3,316	12,431	759
2004 as % of 2003	178	143	106	139	122	61	270	542	0	143	91	269
2003 Total	8,764	5,450	5,114	5,855	30,352	18,972	7,032	746	103	19,328	55,179	7,880

Source: Federal Grain Inspection Service/USDA (www.usda.gov/gipsa); YTD: year-to-date

The United States exports approximately one-quarter of the grain it produces. On average, it includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Over 60 percent of these U.S. export grain shipments departed through the Mississippi Gulf region in 2003.

Figure 11

U.S. grain inspected for export, including wheat, corn, and soybeans



Source: Federal Grain Inspection Service/USDA (www.usda.gov/gipsa)

Ocean Transportation

For more information contact: Deen Olowolayemo (202) 690-1328 (ocean freight rates) or April Taylor (202) 690-1326 (container rates)

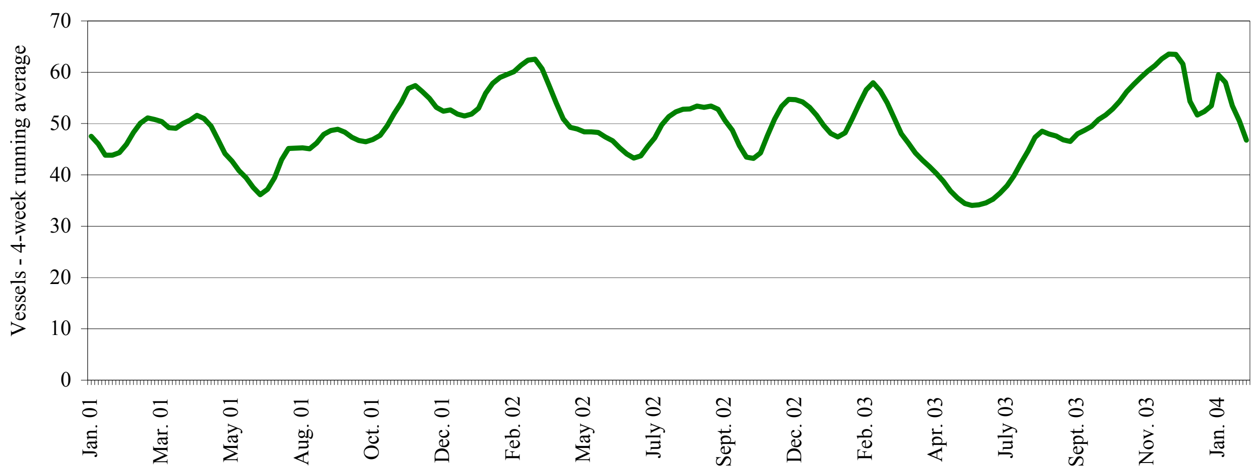
Table 15--Weekly port region grain ocean vessel activity (number of vessels)

	Gulf			**Pacific Northwest**	**Vancouver B.C.**
Date	In port	Loaded 7-days	Due next 10-days	In port	In port
2/26/2004	26	45	78	6	4
2/19/2004	39	49	74	9	6
2003 range	(11..47)	(30..76)	(39..93)	(3..13)	(1..15)
2003 avg.	31	49	62	9	6

Source: Transportation & Marketing Programs/AMS/USDA

Figure 12

Gulf Port grain vessel loading (past 7 days)



Source: Transportation & Marketing Programs/AMS/USDA

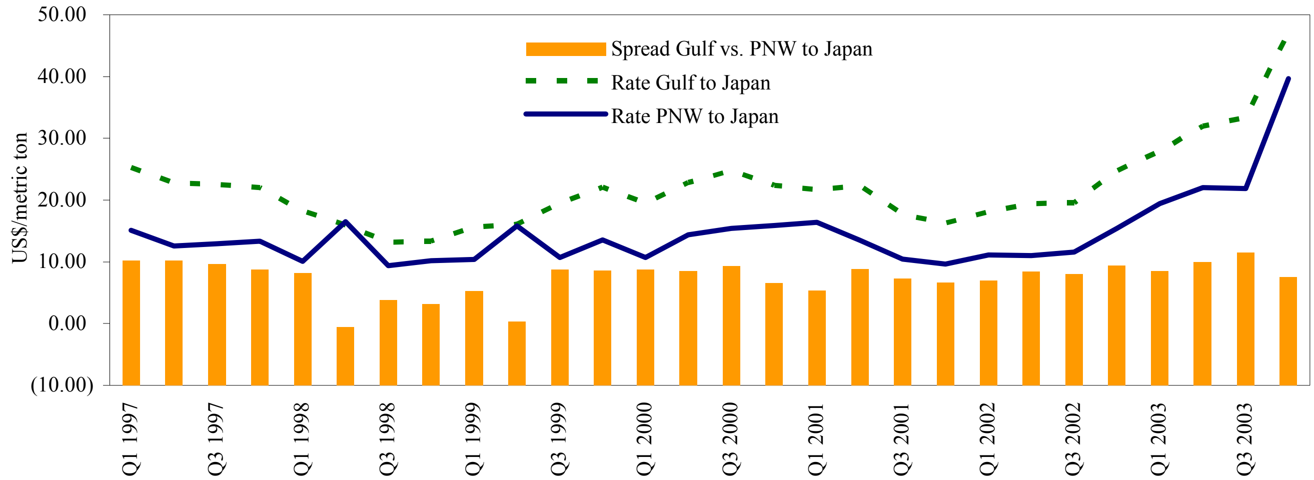
Table 16--Quarterly ocean freight rates (average rates & percentage changes) (US$/metric ton)

Countries/ regions	2003 4th qtr	2002 4th qtr	Percent change	Countries/ regions	2003 4th qtr	2002 4th qtr	Percent change
Gulf to				**Pacific NW to**			
Japan	$41.83	$24.75	69	Japan	---	$15.39	---
Taiwan	$44.00	---	---				
N. Europe	---	$18.07	---	**Argentina/Brazil to**			
N. Africa	$35.00	$18.33	91	Med. Sea	$33.38	$22.00	75
Med. Sea	$31.75	---	---	N. Europe	---	$22.63	---

Source: Maritime Research, Inc. (www.maritime-research.com)

Figure 13

Grain vessel rates, U.S. to Japan



Source: Baltic Exchange (www.balticexchange.com)

Table 17--Ocean freight rates for selected shipments, week ending 02/28/04

Export region	Import region	Grain	Month	Volume loads (metric tons)	Freight rate ($/metric ton)
U.S. Gulf	Peru*	Grains	Mar. 9/18	9,700	55.59
U.S. Gulf	Taiwan	Hvy grain	Mar. 10/20	56,000	68.00
U.S. Gulf	China	Hvy grain	Feb. 5/14	55,000	60.00
U.S. Gulf	Japan	Hvy grain	Mar. 10/20	54,000	75.00
U.S. Gulf	W. Africa	Wheat	Feb. 25/29	35,000	70.00

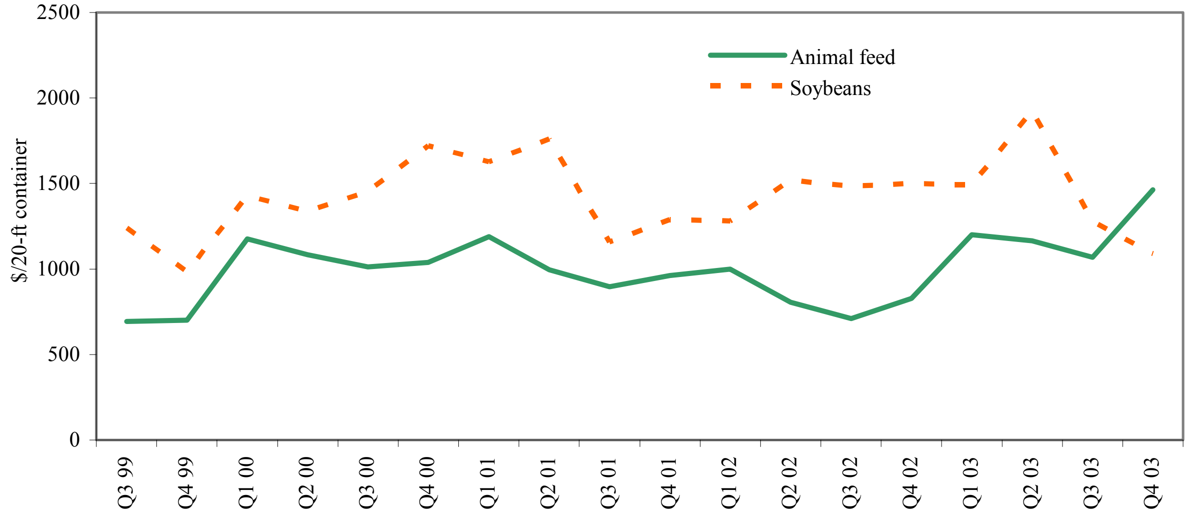
Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option

*Most food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are limited in availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.

Source: Maritime Research Inc. (www.maritime-research.com)

Figure 14

Weighted average rates[1] for containerized shipments of animal feed and soybeans to selected Asian countries



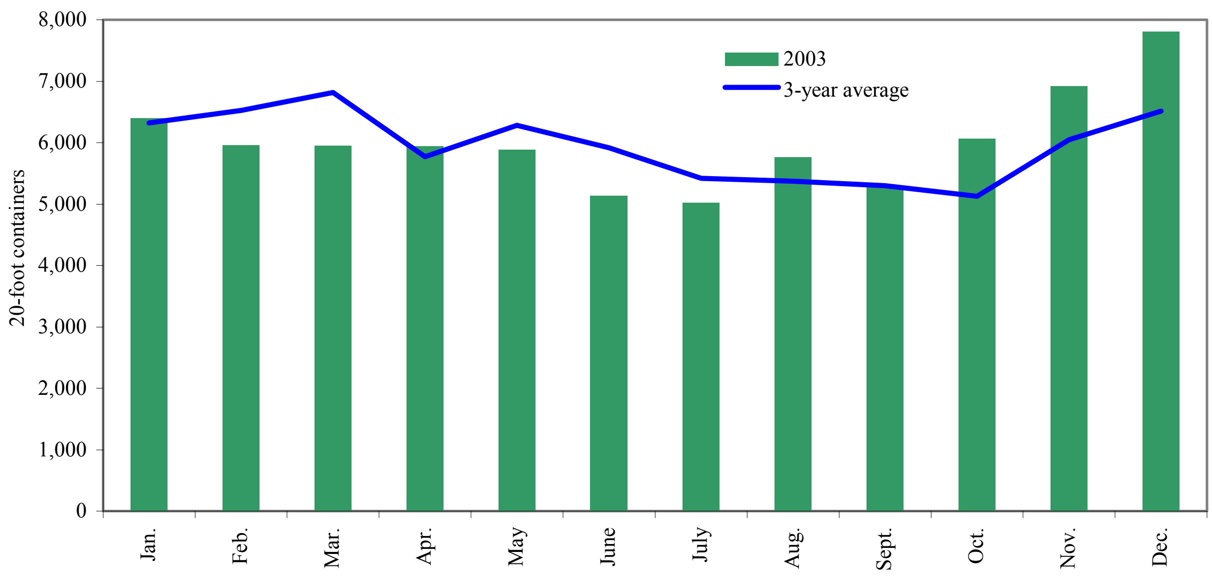
[1]Animal Feed: Bangkok-Thailand (4%), Busan-Korea (24%), Hong Kong (14%), Keelung-Taiwan (14%), Tokyo-Japan (44%), and soybeans: Bangkok-Thailand (3%), Busan-Korea (7%), Hong Kong (1%), Keelung-Taiwan (24%), Tokyo-Japan (65%) January-December 2003.

Source: Ocean Rate Bulletin, Transportation & Marketing Programs/AMS/USDA

Container ocean freight rates – average rate per twenty-foot equivalent unit (TEU) weighted by shipping line market share and trade route.

Figure 15

Monthly shipments of containerized grain for 2003, compared with a 3-year average



Source: Port Import Export Reporting Service (PIERS), *Journal of Commerce* , 2003